

What is claimed is:

1. A washing machine comprising:

an outer tub disposed in a case and receiving water therein;

5 an inner tub installed in the outer tub, receiving laundry therein and rotated for washing and dewatering the laundry; and

a lower balancer installed at a lower part of the inner tub for reducing vibration generated during rotation of the inner tub.

10 2. The washing machine of claim 1, further comprising an upper balancer installed at an upper part of the inner tub for reducing vibration generated during rotation of the inner tub.

3. The washing machine of claim 1, wherein the lower balancer
15 comprises:

a base plate installed at an lower surface of the inner tub and providing a space for filling a fluid between the base plate and the lower surface of the inner tub; and

a plurality of partition walls radially installed inside the base plate at
20 intervals, dividing the filling space into a plurality of sections and respectively having a flow path through which the fluid filled in each section can pass.

4. The washing machine of claim 3, wherein the base plate comprises:

a hollow disc unit;

25 an outer wall extended from an outer circumference of the disc unit and

fixed at a lower surface of the inner tub; and

an inner wall extended from an inner circumference of the disc unit and fixed at a lower surface of the inner tub.

5 5. The washing machine of claim 4, wherein a reinforcing rib is formed inside the base plate in a circumferential direction to divide the respective partition wall into an inner partition wall and an outer partition wall.

6. The washing machine of claim 5, wherein the inner partition wall is
10 disposed at an interval from the inner wall or the reinforcing rib.

7. The washing machine of claim 5, wherein the outer partition wall is disposed at an interval from the outer wall or the reinforcing rib.

15 8. The washing machine of claim 4, wherein the disc unit of the base plate has a curved surface.

9. The washing machine of claim 3, wherein the partition wall is formed to be tilted in the direction of the center of the base plate.

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10. The washing machine of claim 3, wherein the flow path has a groove-form with a certain width and depth.

11. The washing machine of claim 1, wherein the lower balancer
25 comprises:

a cover fixed at the lower surface of the inner tub;

a base plate forming a space for filling a fluid by being coupled with the cover; and

a plurality of partition walls radially installed inside the filling space at intervals and dividing the filling space into a plurality of sections and respectively having a flow path through which the fluid filled in each section can pass.

12. A washing machine comprising:

an outer tub receiving water therein;

an inner tub installed in the outer tub, receiving laundry therein and rotated for washing and dewatering the laundry;

a washing plate installed in the inner tub and rotated for agitating water and the laundry;

a hollow dewatering shaft connected to the inner tub and integrally rotated with the inner tub;

a washing shaft received in the dewatering shaft and connected to the washing plate for rotating the washing plate;

a driving motor providing a driving force to the dewatering shaft and the washing shaft;

an upper balancer installed at an upper part of the inner tub for reducing vibration generated during rotation of the inner tub; and

a lower balancer installed at a lower part of the inner tub for reducing vibration generated during rotation of the inner tub.

13. The washing machine of claim 12, wherein the lower balancer comprises:

a base plate installed at the lower surface of the inner tub for providing a space for filling a fluid between the base plate and the lower surface of the inner tub; and

a plurality of partition walls radially installed in the base plate at intervals, dividing the filling space into a plurality of sections, and respectively having a flow path through which the fluid filled in each section can pass.

14. The washing machine of claim 12, wherein the lower balancer comprises:

a cover fixed at the surface of the lower part of the inner tub;

a base plate providing a space for filling a fluid by being coupled with the cover; and

a plurality of partition walls radially installed in the filling space at certain intervals, dividing the filling space into a plurality of sections, and respectively having a flow path through which the fluid filled in each section can pass.

15. A washing machine comprising:

a cylindrical outer tub;

an inner tub disposed in the outer tub and rotated for washing and dewatering laundry, in which a central axis of the inner tub is eccentric with a central axis of the outer tub;

a washing plate rotatably installed in the inner tub, in which a central axis of the washing plate is coaxial with the central axis of the inner tub;

a hollow dewatering shaft connected to the inner tub and rotating coaxially with the central axis of the outer tub;

a washing shaft received in the dewatering shaft and rotating relatively to the dewatering shaft;

5 an eccentric shaft installed at an upper portion of the washing shaft so as to be eccentric with the center of the washing shaft, and coaxially connected with the washing shaft, so as to orbit together with the washing plate centering around the washing shaft;

a driving motor for providing a driving force to the dewatering shaft and
10 the washing shaft;

an upper balancer installed at an upper part of the inner tub for reducing vibration generated during rotation of the inner tub; and

a lower balancer installed at a lower part of the inner tub for reducing vibration generated during rotation of the inner tub.

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16. The washing machine of claim 15, wherein the lower balancer comprises:

a base plate installed at the lower surface of the inner tub for providing a space for filling a fluid between the base plate and the lower surface of the
20 inner tub; and

a plurality of partition walls radially installed in the base plate at intervals, dividing the filling space into a plurality of sections, and respectively having a flow path through which the fluid filled in each section can pass.

25 17. The washing machine of claim 15, wherein the lower balancer

comprises:

a cover fixed at the lower surface of the inner tub;

a base plate providing a space for filling a fluid by being coupled with the cover; and

5 a plurality of partition walls radially installed in the filling space at intervals, dividing the filling space into a plurality of sections, and respectively having a flow path through which the fluid filled in each section can pass.

18. A washing machine comprising:

10 a cylindrical outer tub;

an inner tub installed in the outer tub;

a hollow dewatering shaft connected to the inner tub and rotating integrally with the inner tub;

a washing shaft received in the dewatering shaft in such a manner of making an respective rotation to the dewatering shaft;

a driving motor for providing a driving force to the dewatering shaft and the washing shaft;

a slanted eccentric shaft installed at an upper portion of the washing shaft, having a certain interval with the central axis of the washing shaft and formed to be slanted at a certain angle with the central axis of the washing shaft;

a washing plate installed coaxially with the central axis of the slanted eccentric shaft and rotated centering around the washing shaft by rotation of the washing shaft;

25 an upper balancer installed at an upper part of the inner tub for reducing

vibration generated during rotation of the inner tub; and

a lower balancer installed at a lower part of the inner tub for reducing vibration generated during rotation of the inner tub.

5 19. The washing machine of claim 18, wherein the lower balancer comprises:

a base plate installed at a lower surface of the inner tub for providing a space for filling a fluid between the base plate and the lower surface of the inner tub; and

10 a plurality of partition walls radially installed in the base plate at intervals, dividing the filling space into a plurality of sections, and respectively having a flow path through which the fluid filled in each section can pass.

 20. The washing machine of claim 18, wherein the lower balancer
15 comprises:

a cover fixed at a lower surface of the inner tub;

a base plate providing a space for filling a fluid by being coupled with the cover; and

 a plurality of partition walls radially installed in the filling space at
20 intervals, dividing the filling space into a plurality of sections, and respectively having a flow path through which the fluid filled in each section can pass.